Descriptions

Signal conditioning modules



RoHS

CE Report EN62368-1

UKCA Report BS EN62368-1

Features

- Two-port isolation (signal input and signal output)
- High accuracy of 0.1% Full Scale
- High linearity of 0.1% Full Scale
- Isolation test voltage 3kVDC for 60s
- Low voltage-drop of 3V typical at 20mA input
- Extremely low temperature coefficient of 35ppm/℃
- Industrial grade (Operating ambient temperature range -25℃ to +71℃)
- High reliability with MTBF >500,000 hours

Applications

- Industrial control
- Electric power

Selection Guide

Certification	Part No.	Power Supply input	Input Signal	Output Signal	Isolated Power Output	Channels	Package
EN/BS EN	TR1100L	None	4-20mA	4-20mA	None	1	SIP12

Notes: Product images are for reference only; the actual product shall prevail.

Specifications

Product Specifications	Item	Operating Conditions	Value
Input Specifications	Power Supply Input	Power supply	None
		Input power	None
		Power supply protection	None
	Signal Input	Input signal	4-20mA
		Maximum continuous over range	≤50mA
		Voltage drop-out @20mA	3V (Typ.)
Output Specifications	Signal Output	Output signal	4-20mA
		Load capacity @20mA	≤300Ω
		Load regulation	< 0.05% meas.val./100Ω
Transmission Specifications	Zero Offset		0.1%FS
	Signal Precision		0.1%FS
	Temperature Coefficient	Operating temperature range: -25℃ to +71℃	0.0035%FS/℃
General Specifications	Electric Isolation		Two-port isolation (signal input and signal output)
	Isolation Test	Electric strength test for 1 minute with a leakage current of <1mA, humidity <70%RH	3kVDC
	Insulation Resistance	At 500VDC (signal input and signal output)	100MΩ
	Operating Temperature		-25℃ to +71℃
	Transportation and Storage Temperature		-50℃ to +105℃
	Safety Class		CLASS III
	Application Environment	The presence of dust, severe vibration, shock and corrosive gas may cause damage to the product	
Mechanical Specifications	Case Material	Black plastic, flame-retardant heat- resistant	
	Package	SIP 12	
	Weight	6.2g (Typ.)	
	Cooling Method	Free air convection	

Application Precautions

1. Carefully read and follow the instructions before use;
2. Do not use the product in hazardous areas;
3. Use only DC power supply source for this product and 220V AC power supply is prohibited;
4. It is strictly forbidden to disassemble the product privately in order to avoid product failure or malfunction.

Design Reference

1. Schematic diagram

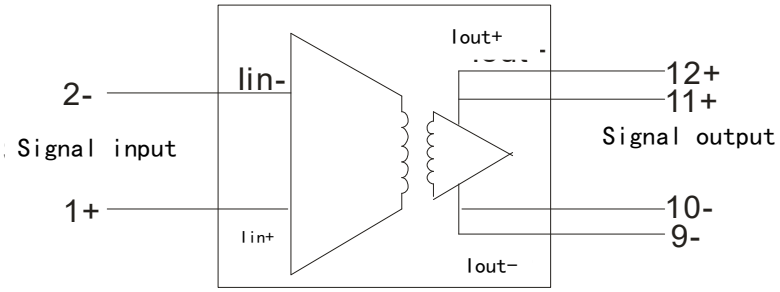


Fig.1

2. Signal input and output correspondence diagram(Ideal state)

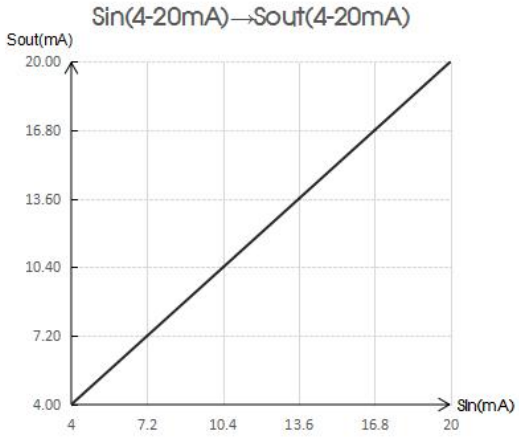


Fig. 2

3. Wiring diagram

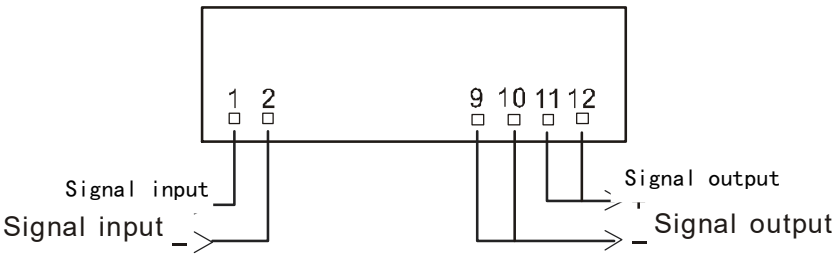
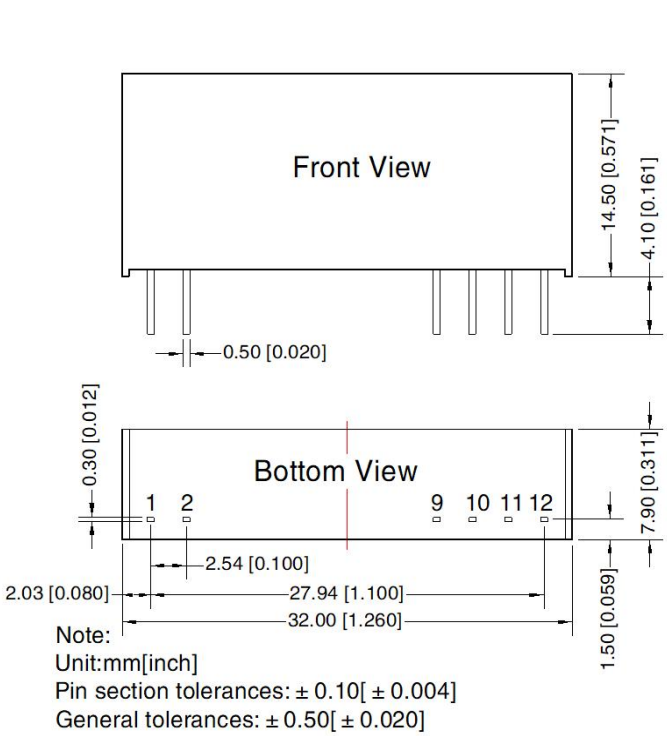
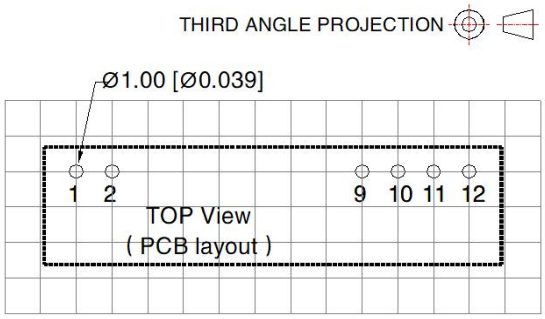


Fig. 3

Dimensions and Recommended





Note：Grid 2.54*2.54mm

Pin–Out	
Pin	Mark
1(Iin+)	Signal input(+)
2(Iin–)	Signal input(–)
9,10(Iout–)	Signal output(–)
11,12(Iout+)	Signal output(+)

Notes:

1. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25℃, humidity<75%RH with nominal input voltage and rated output load;
2. All index testing methods in this datasheet are based on company corporate standards;
3. The above are the performance indicators of the product models listed in this datasheet. Some indicators of non-standard models will exceed the above requirements;
4. Products are related to laws and regulations: see "Features" and "EMC";
5. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units;
6. The image certification marks are for reference only; please refer to the selection table for actual specifications. Certification is based on the physical mark or packaging label.